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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,140	02/14/2002	Paul Durrant	5681-10800	6877

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B. Noel Kivlin
Conley, Rose, & Tayon, P.C.
P.O. Box 398
Austin, TX 78767

EXAMINER	
DUNCAN, MARC M	

ART UNIT	PAPER NUMBER
2113	

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/075,140	DURRANT ET AL.	
	Examiner	Art Unit	
	Marc Duncan	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

Claim 31 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 18-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Canady et al. (6,385,665).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 31 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 31 is not limited to tangible embodiments. In view of Applicant's disclosure. Specification page 4, line 23-27, the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., tape, disk, solid state) and intangible embodiments (e.g., telephone wire, radio waves, etc.) As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

> granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Canady et al. (6,385,665).

Regarding claim 18:

Canady teaches a processor in Fig. 2 – the application cards, unit controllers and system managers all comprise processors.

Canady teaches a memory coupled to the processor, wherein the memory comprises program instructions configured to implement (col. 4 lines 21-32 – the cards and controllers each contain software, which therefore necessitates a memory):

a plurality of device drivers (col. 4 lines 21-32 and lines 40-49 – the software allows communication and management with the various devices, which therefore makes the software equivalent to a device driver. The software on the system managers represent one plurality, the software on the unit controllers represent another plurality and the software on the application cards represent a third plurality of device drivers), each operable to:

monitor an operational status of one of a plurality of devices (col. 4 line 62-col. 5 line 28 and col. 6 lines 62-67), and

consequent upon a change in the operational status of the monitored device (col. 4 line 62-col. 5 line 28 and col. 6 lines 62-67 – the method is performed in response to a fault occurring), to generate fault report data (col. 4 line 62-col. 5 line 28 – fault reports are generated) indicating whether the change of operational status of the first device

was caused internally within the monitored device (col. 5 lines 18-20) or externally by another device connected to the monitored device (col. 5 lines 21-28); and

a fault response process operable to analyze generated fault report data generated by one or more of the plurality of device drivers to determine a faulty one of the plurality of devices (col. 5 lines 33-35).

Regarding claim 19:

Canady teaches wherein the fault report data includes an indication of an operational status of the monitored device in col. 5 lines 36-42.

Regarding claim 20:

Canady teaches wherein, if the fault report data indicates that the change of operational status of the monitored device was caused externally (col. 5 lines 21-28), the device driver is operable to generate fault direction information indicative of a connection from which the external fault is perceived (col. 5 lines 21-28 and lines 36-42 – the fault report data indicates the faulty path causing the error).

Regarding claim 21:

Canady teaches wherein the operational status of the monitored device is one of: up, indicating no fault (col. 4 lines 60-62), degraded, indicating that the monitored device is still operational but with impaired performance (col. 5 lines 23-24 – parity errors and CRC errors indicate path faults while the path is still operational), or down, indicating that the monitored device is not operational (col. 5 lines 18-19).

Regarding claim 22:

Canady teaches wherein the operational status the monitored device is determined from at least one of:

a time to respond to a command (col. 4 line 60-col. 5 line 3 and col. 5 lines 19-20), an amount of data communicated via an I/O bus, an amount of data processed by the monitored device, whether information is being correctly processed (col. 5 lines 23-24), or from an error interrupt signal generated by the monitored device (col. 6 lines 62-67).

Regarding claim 23:

Canady teaches wherein each of the plurality of device drivers is operable to generate environment data representative of at least one parameter value of at least one sensor associated with a device or group of devices, or a Field Replaceable Unit (FRU) containing one or more devices in col. 5 lines 36-42 and col. 6 lines 62-67. The fault report contains environment data including error priority, fault detector identification, the component where the failed device resides, etc.

Regarding claim 24:

Canady teaches wherein each of the plurality of device drivers generates the operational status information from at least one of:

a number of memory accesses performed, a time taken to respond to a command (col. 4 line 60-col. 5 line 3 and col. 5 lines 19-20), and an amount of data processed.

Regarding claim 25:

Canady teaches a method comprising:

monitoring an operational status of each of a plurality of devices (col. 4 line 62-col. 5 line 28 and col. 6 lines 62-67);

for each monitored device:

consequent upon a change in the operational status of the monitored device (col. 4 line 62-col. 5 line 28 and col. 6 lines 62-67 – the method is performed in response to a fault occurring), generating fault report data (col. 4 line 62-col. 5 line 28 – fault reports are generated) indicating whether the change of operational status of the first device was caused internally within the monitored device (col. 5 lines 18-20) or externally by another device connected to the monitored device (col. 5 lines 21-28); and

analyzing generated fault report data for one or more of the monitored devices to determine a faulty one of the plurality of devices (col. 5 lines 33-35).

Regarding claim 26:

Canady teaches wherein the fault report data includes an indication of the operational status of the monitored device in col. 5 lines 36-42.

Regarding claim 27:

Canady teaches wherein, if the fault report data indicates that the change of operational status of the monitored device was caused externally (col. 5 lines 21-28), generating fault direction information indicative of a connection from which the external fault is perceived (col. 5 lines 21-28 and lines 36-42 – the fault report data indicates the faulty path causing the error).

Regarding claim 28:

Canady teaches wherein the operational status of the monitored device is one of:

up, indicating no fault (col. 4 lines 60-62), degraded, indicating that the monitored device is still operational but with impaired performance (col. 5 lines 23-24 – parity errors and CRC errors indicate path faults while the path is still operational), or down, indicating that the monitored device is not operational (col. 5 lines 18-19).

Regarding claim 29:

Canady teaches determining the operational status of the monitored device is from at least one of:

a time to respond to a command (col. 4 line 60-col. 5 line 3 and col. 5 lines 19-20), an amount of data communicated via an I/O bus, an amount of data processed by the monitored device, whether information is being correctly processed (col. 5 lines 23-24), or from an error interrupt signal generated by the monitored device (col. 6 lines 62-67).

Regarding claim 30:

Canady teaches generating environment data representative of at least one parameter value of at least one sensor associated with a device or group of devices, or a Field Replaceable Unit (FRU) containing one or more devices in col. 5 lines 36-42 and col. 6 lines 62-67. The fault report contains environment data including error priority, fault detector identification, the component where the failed device resides, etc.

Regarding claim 31:

Claim 31 is rejected as the computer readable medium containing computer executable instructions that, when executed, provide a plurality of device drivers that perform the method of claim 25.

Response to Arguments

Applicant's arguments with respect to claims 18-22, 25-29 and 31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Duncan whose telephone number is 571-272-3646. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on 571-272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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